IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application:

Appl. No.	:	10/650,511	Confirmation No.:6817
Applicant	:	Douglas B. Quine	
Filed	:	August 28, 2003	
Art Unit	:	2621	
Examiner	:	Jeremiah C. Huber	
Attorney Docket No.	:	F-658	Date: April 2, 2008

Mail Stop Appeal Brief- Patents
Commissioner for Patents
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Appellants respectfully submit the following Brief in the appeal of the subject application. This Brief is in furtherance of the Notice of Appeal filed in this case on February 4, 2008, following a Final Office Action mailed November 2, 2007, rejecting claims 5, 10, 11 and 16.

The Commissioner is hereby authorized to charge any additional fees that may be required for this appeal or to make this brief timely or credit any overpayment to Deposit Account No. 16-1885.

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This Brief contains these items under the following headings and in the order set forth below:

I. REAL PARTY IN INTEREST

The real party in interest is Ibis Consulting, Inc., the assignee of this application, and a wholly owned subsidiary of Pitney Bowes Inc., a Delaware corporation.

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences known to Appellants, their legal representative, or the assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

(1) Claims 5, 10, 11 and 16 are the subject of this Appeal, and stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over US Patent No. 3,674,924 Fischer, et al. ("Fischer") in view of US Patent No. 3,674,926 Dewey, et al. ("Dewey").

(2) Appellants hereby appeal the rejection of claims 5, 10, 11 and 16.

IV. STATUS OF THE AMENDMENTS

Claims 1-16 were filed with the application on August 28, 2003. In an Amendment dated August 16, 2007, claims 1-4, 6-9 and 12-15 was cancelled and claims 5, 10, 11 and 16 were amended. In response to a Final Office Action mailed November 2, 2007, Appellants filed an Notice of Appeal on February 4, 2008. Therefore, current claims 5, 10, 11 and 16 are set forth in Appendix A to this Brief.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 5:

The invention provides a cost-effective method and device to produce one or more images of a mail-related item in motion appearing as if the motion is "frozen" when the image is displayed on a video monitor or the like. This objective can be achieved by a

synchronization system that uses certain synchronization pulses in a video signal to trigger a strobe light, which is used to provide illumination when a video camera is used to acquire one or more images of the mail-related item. (Page 1, lines 16-21).

The invention is directed to acquiring an image of a moving item in a path in a mailing machine using an imaging device and an illumination source positioned relative to the path. (Fig. 1). The image includes a discernible feature of the moving item. The imaging device has a field-of-view covering at least a portion of the path. The illumination source is capable of providing a flash of light for illuminating at least a part of the field-of-view of the imaging device. (Fig. 1, page 3, lines 2-16). The imaging device is capable of acquiring the image in at least one image frame at a time and providing at least one electronic signal indicative of a sync pulse in synchronization with said image acquiring. (Fig. 1, page 3, line 20 to page 4, line 2).

The invention provides a triggering signal based on said at least one electronic signal. (Page 4, lines 6-22). In response to the triggering signal, the invention causes the illuminating source to provide the flash of light for illuminating the moving item at least partially entering the field-of-view. (Id.) The invention acquires the image of the moving item while it is illuminated by the flash of light. (Page 4, lines 23-28). The flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce said discernible feature of the moving item in said image. (Id.) The imaging device comprises a video camera providing two vertical synchronization signals for each image frame. (Fig. 2, page 3, line 20, to page 4, line 22). The sync pulse is selected from one of said two vertical synchronization signals. (Id.) A sensing signal is provided when the moving item having reached a predetermined point in the field-of-view of the image device. (Id.) The triggering signal is provided also based on the sensing signal. (Id.)

Claim 11:

The invention provides a cost-effective method and device to produce one or more images of a mail-related item in motion appearing as if the motion is "frozen" when the image is displayed on a video monitor or the like. This objective can be achieved by a synchronization system that uses certain synchronization pulses in a video signal to

trigger a strobe light, which is used to provide illumination when a video camera is used to acquire one or more images of the mail-related item. (Page 1, lines 16-21).

The invention is directed to acquiring an image of a moving item in a path in a mailing machine using an imaging device and an illumination source positioned relative to the path. (Fig. 1). The image includes a discernible feature of the moving item. The imaging device has a field-of-view covering at least a portion of the path. The illumination source is capable of providing a flash of light for illuminating at least a part of the field-of-view of the imaging device. (Fig. 1, page 3, lines 2-16). The imaging device is capable of acquiring the image in at least one image frame at a time and providing at least one electronic signal indicative of a sync pulse in synchronization with said image acquiring. (Fig. 1, page 3, line 20 to page 4, line 2).

The invention provides a triggering signal based on said at least one electronic signal. (Page 4, lines 6-22). In response to the triggering signal, the invention causes the illuminating source to provide the flash of light for illuminating the moving item at least partially entering the field-of-view. (Id.) The invention acquires the image of the moving item while it is illuminated by the flash of light. (Page 4, lines 23-28). The flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce said discernible feature of the moving item in said image. (Id.) The imaging device comprises a video camera providing two vertical synchronization signals for each image frame. (Fig. 2, page 3, line 20, to page 4, line 22). The sync pulse is selected from one of said two vertical synchronization signals. (Id.) A sensing signal is provided when the moving item having reached a predetermined point in the field-of-view of the image device. (Id.) The triggering signal is provided also based on the sensing signal. (Id.)

Claim 16:

The invention provides a cost-effective method and device to produce one or more images of a mail-related item in motion appearing as if the motion is "frozen" when the image is displayed on a video monitor or the like. This objective can be achieved by a synchronization system that uses certain synchronization pulses in a video signal to

trigger a strobe light, which is used to provide illumination when a video camera is used to acquire one or more images of the mail-related item. (Page 1, lines 16-21).

The invention is directed to acquiring an image of a moving item in a path in a mailing machine using an imaging device and an illumination source positioned relative to the path. (Fig. 1). The image includes a discernible feature of the moving item. The imaging device has a field-of-view covering at least a portion of the path. The illumination source is capable of providing a flash of light for illuminating at least a part of the field-of-view of the imaging device. (Fig. 1, page 3, lines 2-16). The imaging device is capable of acquiring the image in at least one image frame at a time and providing at least one electronic signal indicative of a sync pulse in synchronization with said image acquiring. (Fig. 1, page 3, line 20 to page 4, line 2).

The invention provides a triggering signal based on said at least one electronic signal. (Page 4, lines 6-22). In response to the triggering signal, the invention causes the illuminating source to provide the flash of light for illuminating the moving item at least partially entering the field-of-view. (Id.) The invention acquires the image of the moving item while it is illuminated by the flash of light. (Page 4, lines 23-28). The flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce said discernible feature of the moving item in said image. (Id.) The imaging device comprises a video camera providing two vertical synchronization signals for each image frame. (Fig. 2, page 3, line 20, to page 4, line 22). The sync pulse is selected from one of said two vertical synchronization signals. (Id.) A sensing signal is provided when the moving item having reached a predetermined point in the field-of-view of the image device. (Id.) The triggering signal is provided also based on the sensing signal. (Id.)

This summary is not intended to supplant the description of the claimed subject matter as provided in independent claims 5, 11 and 16 as recited in Appendix A and understood in light of the entire specification.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether or not claims 5, 10, 11 and 16 are patentable under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 3,674,924 Fischer, et al. ("Fischer") in view of US Patent No. 3,674,926 Dewey, et al. ("Dewey").

VII. ARGUMENT

Claims 5, 10, 11 and 16 Are Patentable Over 35 U.S.C. § 103(a) by Fischer in view of Dewey.

As Appellants discuss in detail below, the final rejections of Claims 5, 10, 11 and 16 lack proper support.. It is respectfully submitted that the rejection does not even meet the threshold burden of presenting a prima facie case of unpatentability. For this reason, Appellants are entitled to the grant of a patent. In re Oetiker, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

Claims 5, 10, 11 and 16 are in the case and under final rejection of the Examiner and stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fischer in view of Dewey. Appellants respectfully disagree with the rejection and urge its reversal for at least the reasons stated below.

Neither of the asserted references disclose or suggest a key aspect of the claimed invention. The claimed invention requires that a strobe flash be triggered based on vertical synchronization signals from a video camera. Neither reference describes or suggests that a synchronization signal from a video camera be used as a trigger for generating a strobe light flash. This claimed inventive feature allows that the illuminated image can be properly captured in a video frame recorded by a conventional camcorder style video camera. This allows a standard video camera to be used for capturing a still image of a fast-moving envelope, where it would have previously not been possible.

More particularly, independent claims 5, 11, and 16 all recite a "video camera providing two vertical synchronization signals for each image frame", and selecting the "sync pulse" from "one of said vertical synchronization signals." These synchronization

signals recited in the claims are used to coordinate the video image captured with the "triggering signal" generated by the presence of the mail piece. This arrangement is not disclosed by Fischer which instead describes that "the letter transport system and the television camera 20 electronics are not synchronized." Col. 4, lines 40-41.

Thus, Fischer does not disclose the combination of the synchronization signals with the triggering signals as recited in the claims. The Examiner's Official Notice is insufficient because, while synchronization signals may have been generally known, there has been no showing made that a video camera vertical synchronization signal can be used as a basis for triggering the strobe flash.

With regard to a synchronization feature, the Examiner has relied on the disclosure in Dewey, which includes some synchronization circuitry. However, the circuitry in Dewey is directed to synchronizing the camera to allow analysis of different areas of a specimen without moving the specimen. Dewey makes no mention of a strobe light, or the use of a synchronization signal from the camera to trigger a strobe flash. Dewey has no need for a strobe light, since the sample being captured and analyzed in the video signal is kept stationary.

The Examiner has made some additional assertions to the effect that the recitations relating to the synchronization signals are not positively recited, and therefore do not add patentable weight. This assertion is incorrect. In each of the independent claims 5 and 11 the step or element for selecting the "synch pulse" is tied to the "electronic signal." first mentioned in the preamble. This "electronic signal," which is required to be derived from the "synch pulse" is then positively recited in the step or element for providing the "triggering signal" for the "illuminating source." For independent claim 16, the links between the "triggering signal" and the "synchronization pulses" is all positively recited in the body of the claim. Thus, the use of the "vertical synchronization signals" is positively required in connection with the "triggering signal" in every independent claim.

For these reasons, independent claims 5, 11, and 16 should be allowable and their rejections, along with the rejection of dependent claim 10, should be reversed.

VIII. CONCLUSION

For the reasons advanced above, Appellants respectfully submit that claims 5, 10, 11 and 16 are patentable. Reversals of the rejections by the Examiner are respectfully requested.

Respectfully submitted,

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CLAIMS APPENDIX A

1 – 4. (cancelled)

5. A method of acquiring an image of a moving item in a path in a mailing machine using an imaging device and an illumination source positioned relative to the path, wherein the image includes a discernible feature of the moving item, the imaging device having a field-of-view covering at least a portion of the path, the illumination source capable of providing a flash of light for illuminating at least a part of the field-of-view of the imaging device, wherein the imaging device is capable of acquiring the image in at least one image frame at a time and providing at least one electronic signal indicative of a sync pulse in synchronization with said image acquiring, said method comprising the steps of:

providing a triggering signal based on said at least one electronic signal;

in response to the triggering signal, causing the illuminating source to provide the flash of light for illuminating the moving item at least partially entering the field-of-view;

acquiring the image of the moving item while it is illuminated by the flash of light, wherein the flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce said discernible feature of the moving item in said image;

wherein the imaging device comprises a video camera providing two vertical synchronization signals for each image frame, and the sync pulse is selected from one of said two vertical synchronization signals; and

providing a sensing signal when the moving item having reached a predetermined point in the field-of-view of the image device, wherein the triggering signal is provided also based on the sensing signal.

6 – 9. (cancelled)

10. The system of claim 11, wherein the detection mechanism comprises a photosensor.

11. A system for acquiring an image of a moving item in a path in a mailing machine using an imaging device and an illumination source positioned relative to the path, wherein the image includes a discernible feature of the moving item, the imaging device having a field-of-view covering at least a portion of the path, the illumination source capable of providing a flash of light for illuminating at least a part of the moving item entering the field-of-view of the imaging device, wherein the imaging device is capable of acquiring the image in at least one image frame at a time and providing at least one electronic signal indicative of a sync pulse in synchronization with said image acquiring, said system comprising:

a detection mechanism, positioned relative to the path, for providing an arrival signal indicating that the moving item entering the field-of-view has reached a predetermined point in the path;

an electronic circuit, in response to the arrival signal, for providing a triggering signal based on said at least one electronic signal to cause the illuminating source to provide the flash of light for illuminating said moving item while the image is acquired, wherein the flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce said discernible feature of the moving item in said image;

wherein the imaging device comprises a video camera providing two vertical synchronization signals for each image frame, and the sync pulse is selected from one of said two vertical synchronization signals; and

wherein the electronic circuit comprises a pulse dividing circuit for selecting the sync pulse.

12 -15. (cancelled)

16. An image acquisition system for use in viewing a moving item in a path in a mailing machine, said imaging system comprising:

an imaging device, having a field of view covering at least a portion of the path, for acquiring an image of the moving item, the image including a discernible feature of the moving item;

an illuminating source, positioned relative to the field-of-view of the imaging device, for providing a flash of light for illuminating at least a part of the moving item entering the field-of-view of the imaging device;

a detection mechanism, positioned relative to the path, for providing an arrival signal indicating that the moving item entering the field-of-view has reached a predetermined point in the path;

an electronic circuit, in response to the arrival signal, for providing a triggering signal based on a synchronization pulse from the imaging device to cause the illuminating source to provide the flash of light for illuminating said moving item while the image is acquired, wherein the flash of light has a flash duration sufficiently short as compared to the motion of the moving item so as to produce said discernible feature of the moving mail-related item in said image; and

wherein the imaging device comprises a video camera providing two vertical synchronization pulses for each image frame, and the synchronization pulse is selected from one of said two vertical synchronization pulses.

EVIDENCE APPENDIX B

None

RELATED PROCEEDINGS APPENDIX C

None